



# The Total Maximum Daily Load Program: past, present & future

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# Clean Water Act & TMDL Program

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- ❖ Federal Water Quality Regulations
  - ◆ 1992 TMDL Regulations
- ❖ Washington TMDL Program



# 1965 Water Quality Act

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- ❖ State water quality standards are the center of the federal-state water pollution control program
- ❖ Required federally approved standards on interstate waters

# 1972

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- ❖ widespread deteriorating water quality
- ❖ water should be clean
- ❖ pollution seen as a national problem
- ❖ who should clean it up - state or federal government?



# **1972 Federal Water Pollution Control Amendments (CWA)**

- ❖ **303(d) established a process for use of water quality standards to clean up state waters**
- ❖ **uniform federal standards (BAT) for point source control**

# 303(d)

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- ❖ Section 303(d) requires states to
- ❖ 1) identify waters that are polluted after application of technology standards;
- ❖ 2) prioritize waters according to severity of pollution; and
- ❖ 3) establish “total maximum daily loads” (TMDLs) to meet water quality standards.



# Late 1980s

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- ❖ 1987 - acute toxicity problems in more than 124,000 stream miles, 1/2 million acres of lakes.
- ❖ 1989 - EPA Region 10 had received and approved 1 TMDL for 602 listed waters



# 1996

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- ❖ Lawsuits pending in more than a dozen states





# Why are TMDLs important?

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- ❖ Play a critical role in implementing water quality standards
- ❖ Integrate pollutant sources (e.g. nonpoint and point, air deposition)
- ❖ Present opportunities for stakeholder involvement and innovative problem solving.

# What do §303(d) lists tell us?

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- ❖ 218 million Americans live within 10 miles of an impaired waterbody
- ❖ States have identified about 21,000 polluted river segments, lakes, and estuaries
  - ◆ Over 300,000 river & shore miles & 5 million lake acres
  - ◆ Excess sediments, nutrients, and harmful microorganisms are leading reasons

# What is a TMDL?

## 1992 Regulations

- ❖ An inventory of pollutant sources & loadings
- ❖ a determination of how much of a pollutant a waterbody can receive and still meet water quality standards
- ❖ an allocation of pollution control responsibilities among point and nonpoint sources
  - ◆  $TMDL = \Sigma WLA + \Sigma LA + MOS$

# 1992 Regulations (cont.)

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- ❖ TMDLs are not self-implementing; rely on other authorities, e.g. NPDES, to implement WLAs and LAs
- ❖ TMDLs are developed for each pollutant causing an impairment



# 2004

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- ❖ Lawsuits in 43 states
- ❖ States report that over 40% of assessed waters are still too polluted for fishing or swimming



# Lawsuit: Washington TMDL Program

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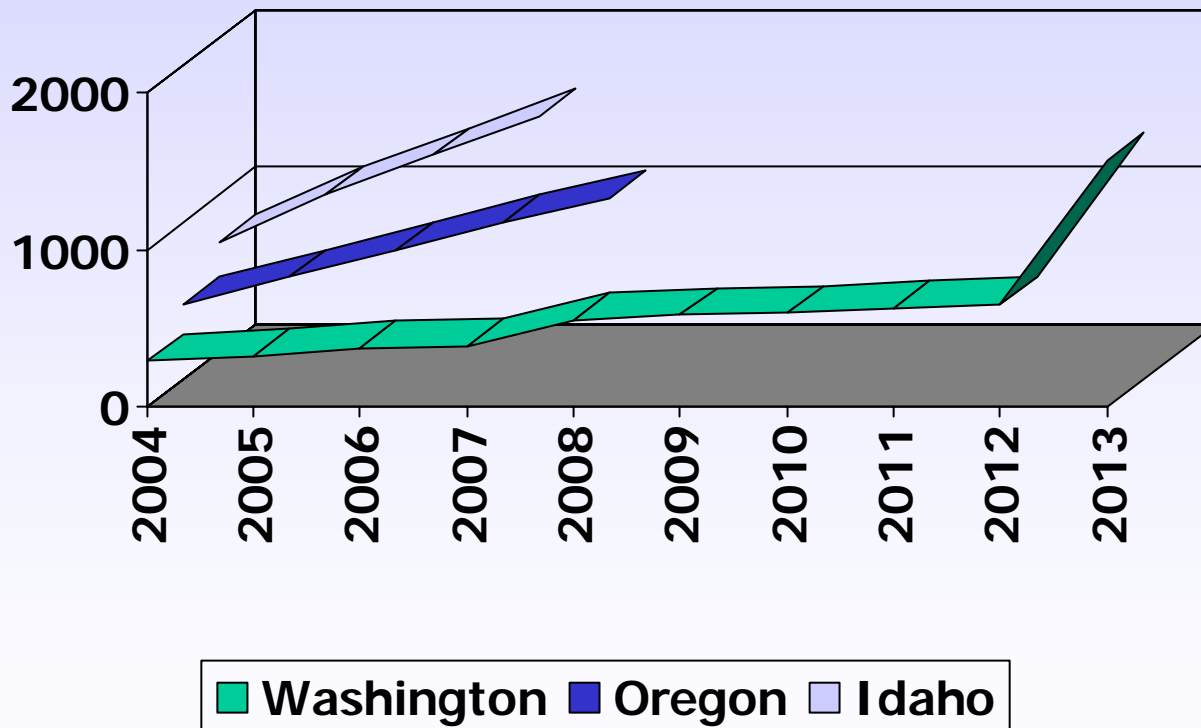
- ❖ Washington 1997 consent decree and settlement agreement
  - ◆ 15 year schedule
  - ◆ completion of 1566 TMDLs by 2013
  - ◆ MOA between EPA and Ecology requires implementation plans be part of TMDL submittal
  - ◆ EPA as backstop

# **Lawsuit: Washington TMDL Program Implementation**

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- ❖ **Summary Implementation Strategies (SIS) Plans are Part of the TMDL**
- ❖ **Detailed Implementation Plans (DIPs) are due 1 year after TMDL approval**
- ❖ **EPA and Ecology must report the the Plaintiffs on the effectiveness of TMDLs**

# Lawsuit: How Fast are TMDLs being completed in WA, ID and OR?



# Washington TMDL Program

## 1998 303(d) list

- ❖ 643 waterbodies
- ❖ 2314 impaired & threatened waterbodies / pollutants on 1998 303(d) list
- ❖ 2683 TMDLs required by proposed 2002 303(d) list

# WA Rivers: 56% impaired

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## ❖ Pollutants impairing our use of rivers

- ◆ temperature (35%)
- ◆ fecal coliform (18%)

## ❖ Possible pollution sources

- ◆ agriculture (30%)
- ◆ hydromodification (18%)



# WA Lakes: 38% impaired

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## ❖ Pollutants

- ◆ nutrients

## ❖ Causes

- ◆ agriculture
- ◆ urbanization
- ◆ forestry



# For More Information

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- ❖ TMDL EPA HQ homepage -  
<http://www.epa.gov/owow/tmdl>
  - ◆ EPA guidance and documents
  - ◆ Status report on litigation
  - ◆ TMDL Federal Advisory Committee Report
  - ◆ Maps and information on impaired waters
  - ◆ Links to other TMDL websites, including EPA Region 10 - [www.epa.gov/r10earth](http://www.epa.gov/r10earth)
  - ◆ Regulations